

- 10 -

CLAIMS

1. A process for optimizing the extraction at room temperature of juice or puree from pulps of fruit and vegetables having a predetermined consistency, said machine having:

- a softening section of said food pulps having at least a first stator and a first rotor, said first rotor rotating at a first speed;
- an extracting section having at least a second stator and a second rotor, said second rotor rotating at a second speed,
- speed adjusting means operatively connected to rotors driving means,

characterised in that the steps are provided of actuating the rotors driving means by said speed adjusting means according to a predetermined ratio between the first and the second speed responsive to an input parameter relative to the consistency of the food pulps.

2. Process for optimizing the extraction according to claim 1, wherein said speed adjusting means comprise means for receiving an input parameter through a processor, and the steps are provided of:

- communicating to the processor an input parameter relative to the consistency of the food pulps;
- actuating the rotors driving means according to a predetermined ratio between the first and the second speed responsive to the input parameter.

3. A machine for extracting at room temperature juice or puree from food pulps of fruit and vegetables having a predetermined consistency comprising:

- 11 -

- a softening section of said food pulps having at least a first stator and a first rotor, said first rotor rotating at a first speed;

5 - an extracting section having at least a second stator and a second rotor, said second rotor rotating at a second speed,

characterised in that it comprises

- a first motor for causing said first rotor to rotate at said first speed,

10 - a second motor for causing said second rotor to rotate at said second speed,

15 - a device for adjusting the speed and the efficiency of the machine, having speed adjusting means operatively connected to the first and the second motor, whereby it is possible to operate the rotors driving means by said speed adjusting means according to a predetermined ratio between the first and the second speed responsive to an input parameter relative to the consistency of the food pulps.

20 4. Machine according to claim 3, wherein said speed adjusting means comprise means for receiving an input parameter through a processor, and means are provided for setting in said processor an input parameter relative to the consistency of the food pulps, said rotors driving means actuating said rotors according to a predetermined ratio between the first and the second speed responsive to the input parameter.

25 5. Machine according to claim 2, wherein said speed adjusting means are means operated manually selected from the group: frequency variators, mechanical gearboxes.

30 6. Machine according to claim 2, wherein said first and second motor have axes shifted from each other.

- 12 -

7. Machine according to claim 2, wherein said first and second motor are coaxial.
8. Machine according to claim 4, wherein said first rotor is mounted on a first shaft and said second motor is mounted on a second shaft, wherein said first and second shaft are coaxial and pivotally engaged within/on one another, whereby they are capable of having speed independent from each other and of bearing workloads different with respect to each other.

5

10

15